APPENDIX A - CLAIM AMENDMENTS

Serial No.: 10/768,778
Docket No.: 687-3108/US

1. (Canceled)

2. (Currently Amended) A method of controlling a temperature of an applicator body, the method comprising:

providing an applicator body that comprises at least one electrode surface; delivering a coolant through a conduit in at least a portion of the applicator body at a substantially constant rate;

delivering sufficient heat energy, from within the applicator body, to the at least one electrode surface by energizing one or more heating elements so that the at least one electrode surface of the applicator body is cooled by the coolant to a desired temperature;

delivering therapeutic electrical energy through the at least one cooled electrode surface; and

~~The method of claim 1 comprising~~ contacting the at least one electrode surface against a surface adjacent pelvic support tissue.

3. (Previously Presented) The method of claim 2 wherein the cooled at least one electrode surface cools the contacted tissue that is adjacent the pelvic support tissue to a temperature between 0°C and 40°C.

4. (Currently Amended) A method of controlling a temperature of an applicator body, the method comprising:

providing an applicator body that comprises at least one electrode surface; delivering a coolant through a conduit in at least a portion of the applicator body at a substantially constant rate;

delivering sufficient heat energy, from within the applicator body, to the at least one electrode surface by energizing one or more heating elements so that the at least

one electrode surface of the applicator body is cooled by the coolant to a desired temperature; and

delivering therapeutic electrical energy through the at least one cooled electrode surface,

~~The method of claim 1~~ wherein the desired temperature is between about - 5°C and about 3°C.

5. (Original) The method of claim 3 wherein the desired temperature is about -2°C.

6. (Currently Amended) A method of controlling a temperature of an applicator body, the method comprising:

providing an applicator body that comprises at least one electrode surface; delivering a coolant through a conduit in at least a portion of the applicator body at a substantially constant rate;

delivering sufficient heat energy, from within the applicator body, to the at least one electrode surface by energizing one or more heating elements so that the at least one electrode surface of the applicator body is cooled by the coolant to a desired temperature; and

delivering therapeutic electrical energy through the at least one cooled electrode surface,

~~The method of claim 1~~ wherein the coolant comprises a R134a refrigerant gas.

7. (canceled)

8. (Currently Amended) The method of claim [[1]] 2, 4 or 6 further comprising reducing a power level of the energy delivered to the heating element when the therapeutic heating energy is delivered to the at least one electrode surface.

9. (Currently Amended) ~~The method of claim 1 comprising:~~ A method of controlling a temperature of an applicator body, the method comprising:

providing an applicator body that comprises at least one electrode surface; delivering a coolant through a conduit in at least a portion of the applicator body at a substantially constant rate;

delivering sufficient heat energy, from within the applicator body, to the at least one electrode surface by energizing one or more heating elements so that the at least one electrode surface of the applicator body is cooled by the coolant to a desired temperature; and

delivering therapeutic electrical energy through the at least one cooled electrode surface;

monitoring a temperature of the at least one electrode surface; and

adjusting a power level of the energy delivered to the heating element to maintain the at least one electrode surface of the applicator body at substantially the desired temperature.

10. (Currently Amended) The method of claim [[1]] 2, 4 or 6 wherein the heating element comprises a plurality of resistive heating elements positioned within the applicator body.

11. (Original) The method of claim 10 wherein the resistive heating element(s) contact a portion of the applicator body surrounding the coolant.

12. (Previously Presented) The method of claim 10 wherein the resistive heating element(s) are positioned in such as way as to minimize a flow related spatial distribution of temperature across the contact surface.

13. (Original) The method of claim 12 wherein the spatial distribution of temperature across the contact surface is reduced to less than about 2 degrees Celsius.

14. (Previously Presented) The method of claim 12 wherein the resistors are chosen to be at different wattage values in such a way as to reduce a flow related spatial distribution of temperature across the electrode surface while still permitting use of a single power source.

15. (Currently Amended) ~~The method of claim 1~~ A method of controlling a temperature of an applicator body, the method comprising:

providing an applicator body that comprises at least one electrode surface; delivering a coolant through a conduit in at least a portion of the applicator body at a substantially constant rate;

delivering sufficient heat energy, from within the applicator body, to the at least one electrode surface by energizing one or more heating elements so that the at least one electrode surface of the applicator body is cooled by the coolant to a desired temperature; and

delivering therapeutic electrical energy through the at least one cooled electrode surface, wherein providing the applicator body comprises providing the coolant in a path for distributing the coolant substantially evenly over the contact surface.

16. (original) The method of claim 15 wherein the path is a serpentine path.

17. (Canceled)

18. (Canceled)

19. (Currently Amended) The applicator of claim [[17]] 24 further comprising an RF power source coupled to the electrodes.

20. (Currently Amended) The applicator of claim [[17]] 24 further comprising a control assembly that controls the delivery of the coolant and the heating element(s).

21. (Currently Amended) The applicator of claim [[17]] 24 wherein the heating energy delivered to the heating element(s) is discontinued when the therapeutic energy is delivered to the electrodes.

22. (Currently Amended) The applicator of claim [[17]] 24 further comprising a power supply coupled to the heating element(s), wherein the power supply is controlled with a temperature control algorithm.

23. (Canceled)

24. (Currently Amended) An applicator that delivers energy comprising:
an applicator body comprising a proximal portion and a distal portion;
an electrode surface on the distal portion of the applicator body for delivering therapeutic electrical energy therethrough;

a conduit that delivers a coolant on a path through at least a part of the distal portion of the applicator body; and

one or more resistive heating elements thermally coupled, from within the applicator body, to the distal portion of the applicator body and entirely beneath the electrode surface to deliver a heating energy to the coolant in the conduit, wherein the energy is sufficient to heat the coolant so that the electrode surface is at a desired temperature, ~~The applicator of claim 23~~ wherein the resistive heating elements are positioned to reduce a temperature differential across the electrode surface to less than about 2 degrees Celsius.

25. (Currently Amended) The applicator of claim [[23]] 24 wherein the electrode surface defines a proximal end and a distal end, wherein the heating elements are positioned to deliver more energy toward the proximal end of the electrode surface.

26. (Currently Amended) The applicator of claim [[17]] 24 wherein a flow of the coolant is substantially constant.

27. (Currently Amended) The applicator of claim [[17]] 24 wherein the desired temperature of the electrode-surface is between about -5°C and about 3°C.

28. (Currently Amended) The applicator of claim [[17]] 24 wherein the coolant comprises a R134a refrigerant gas.

29. (Previously Presented) An applicator that delivers energy comprising:

an applicator body comprising a proximal portion and a distal portion;

an electrode surface on the distal portion of the applicator body for delivering therapeutic electrical energy therethrough;

a conduit that delivers a coolant on a path through at least a part of the distal portion of the applicator body, wherein the coolant path through the distal portion of the applicator is a serpentine path; and

one or more heating elements thermally coupled, from within the applicator body, to the distal portion of the applicator body to deliver a heating energy to the coolant in

the conduit, wherein the energy is sufficient to heat the coolant so that the electrode surface is at a desired temperature.

30. (Currently Amended) The applicator of claim [[17]] 24 further comprising a temperature sensor that monitors a temperature of the electrode surface.

31. (Canceled)

32. (Currently Amended) The system of claim [[31]] 34 further comprising the power source, wherein the power source is an RF power source.

33. (Currently Amended) The system of claim [[31]] 34 wherein the temperature sensor comprises a thermocouple.

34. (Currently Amended) ~~The system of claim 31~~ A system for heating a target tissue adjacent an intermediate tissue, the system comprising:

a body comprising one or more electrodes oriented for contacting the intermediate tissue;

a control system coupled to a power source and to the electrode(s), the control system adapted to selectively energize the electrode(s) so as to deliver a therapeutic heating energy through the intermediate tissue to the target tissue; and

a cooling assembly configured to control a temperature of the electrode(s), wherein the cooling assembly comprises:

a flow conduit positioned in the body to deliver a coolant adjacent the electrode(s);

a heating element positioned entirely under the electrode(s) and flow conduit to deliver energy to the flow conduit from within the body;

a temperature sensor positioned adjacent the electrode that measures a temperature of the electrode, wherein the coolant comprises a R134a gas.

35. (Canceled)